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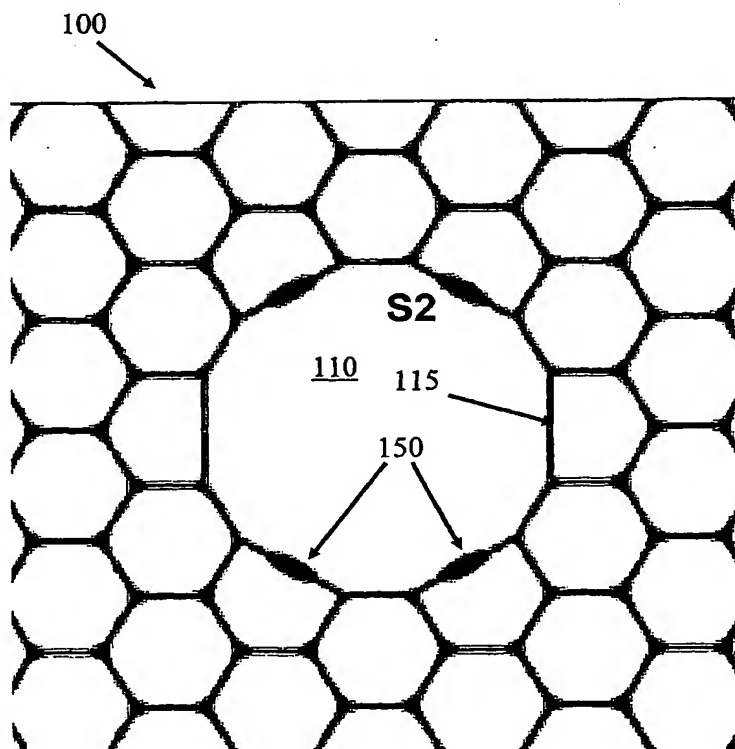
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(54) Title: **BIREFRINGENT PHOTONIC BANDGAP OPTICAL WAVEGUIDE**



(57) Abstract: A birefringent elongate waveguide for guiding light, comprises: a core region (110), comprising an elongate region of relatively low refractive index; and a cladding region (100), comprising elongate regions (105) of relatively low refractive index interspersed with elongate regions (117, 120) of relatively high refractive index. In a transverse cross-section of the waveguide, a (5) relatively high refractive index boundary region (115) is provided that surrounds the core region and has either (1) at most two-fold rotational symmetry or (2) a rotational symmetry that reduces the rotational symmetry of the waveguide to at most two-fold rotational symmetry. The symmetry of the boundary region (115) results at least in part from azimuthal variations therein, which are substantially uncharacteristic of the cladding region (100).

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